

Amendment to the Claims

1. (Currently Amended) A method for connecting display panel substrates comprising ~~the steps of~~:

(1) aligning the positions of and holding a first substrate and a second substrate whereon sealant material is disposed so as to form a waste region in the an inner side region of the edges of the first and second substrates;

(2) inserting a spacer having a thickness substantially equal to a prescribed cell gap in said waste region between said first and second substrates;

(3) setting said cell gap with the spacer by pressing said first and second substrates;

(4) hardening said sealant material; and

(5) withdrawing said spacer.

2. (Original) The method for connecting display panel substrates according to claim 1, wherein, if said connection is performed inside an air-tight processing chamber, a further step of evacuating said processing chamber from normal pressure to vacuum pressure is included between said step (1) and said step (2).

3. (Original) The connecting method for display panel substrates according to claim 2, further comprising, between said step (2) and said step (3), a step of returning said processing chamber in a vacuum state to normal pressure whilst maintaining a pressure difference of substantially zero between the expected cell interior space of said processing chamber and the space outside said expected cell interior space.

4. (Original) The method for connecting display panel substrates according to claim 1, wherein, during said step (1) to said step (4), the first and second substrates are respectively fayed with and held on first and second surface tables, whilst drawing a vacuum between the outer faces of said first and second substrate on the other sides thereof to the mutually opposing inner faces of said substrates, and contact surfaces of said first and second surface tables which respectively confront these outer sides of the substrates.

5. (Original) The method for connecting display panel substrates according to claim 4, wherein, if said connection is performed inside a processing chamber, the air suction power for evacuating said processing chamber as a whole is less than the air suction power for faying said first and second substrates.

6. (Cancelled)

7. (Original) The method for connecting display panel substrates according to claim 1, wherein said spacer is constituted by a tapered block-shaped spacer element whose thickness varies at a constant rate, the cell gap determined in said step (3) being adjusted by withdrawing said spacer from an inserted state.

8-9. (Cancelled)

10. (Original) The method for connecting display panel substrates according to claim 1, wherein the hardening of said sealant material is performed by irradiation of ultraviolet light.

11. (Original) The method for connecting display panel substrates according to claim 1, wherein the hardening of said sealant material is performed by heating.

12-21. (Cancelled)

22. (New) A method for connecting display panel substrates comprising:

(1) aligning the positions of and holding a first substrate and a second substrate whereon sealant material is disposed so as to form a waste region in an inner side region of the edges of the first and second substrates;

(2) inserting a spacer having a plurality of spacer elements numbering three or more, which are layered together in a mutually separable fashion, in the waste region between said first and second substrates;

(3) adjusting a cell gap by the total thickness of the plurality of spacer elements, and setting the cell gap by pressing the first and second substrates;

(4) hardening the sealant material; and

(5) withdrawing one of the spacer elements located in substantially a middle region of the spacer whilst leaving the spacer elements that contact and hold the first and second substrates, and then subsequently withdrawing the remaining spacer elements.

23. (New) The method for connecting display panel substrates according to claim 22, wherein the hardening of said sealant material is performed by irradiation of ultraviolet light.

24. (New) The method for connecting display panel substrates according to claim 22, wherein the hardening of said sealant material is performed by heating.

25. (New) A method for connecting display panel substrates comprising:

(1) aligning the positions of and holding a first substrate and a second substrate whereon sealant material is disposed so as to form a waste region in an inner side region of the edges of the first and second substrates;

(2) inserting a spacer and an additional auxiliary spacer element in the waste region between the first and second substrates, wherein the additional auxiliary spacer element is caused to contact the first substrate and the total thickness of the spacer and the additional auxiliary spacer element is set at a value that is greater than a prescribed cell gap;

(3) adjusting the prescribed cell gap by withdrawing the additional auxiliary spacer element;

(4) setting the cell gap by pressing the first and second substrates;

(5) hardening the sealant material; and

(6) withdrawing the spacer.

26. (New) The method for connecting display panel substrates according to claim 25, wherein the hardening of said sealant material is performed by irradiation of ultraviolet light.

27. (New) The method for connecting display panel substrates according to claim 25, wherein the hardening of said sealant material is performed by heating.

28. (New) A method for connecting display panel substrates comprising:
(1) placing a first substrate and a second substrate in an air-tight processing chamber;

(2) aligning the positions of and holding the first substrate and the second substrate whereon sealant material is disposed so as to form a waste region in an inner side region of the edges of the first and second substrates, wherein the first and second substrates are respectively fayed with and held on first and second surface tables, whilst drawing a vacuum between the outer faces of the first and second substrates on the other sides thereof to the mutually opposing inner faces of the first and second substrates, and contact surfaces of the first and second surface tables which respectively confront the outer sides of the first and second substrates;

(3) evacuating the processing chamber from normal pressure to vacuum pressure;

(4) inserting a spacer and an auxiliary spacer element in the waste region between the first and second substrates such that the auxiliary spacer element is caused to contact the first substrate, wherein a total thickness of the spacer and the auxiliary spacer element is set to a value that is greater than a prescribed cell gap;

(5) adjusting the prescribed cell gap by withdrawing the additional auxiliary spacer element;

(6) setting the cell gap by pressing the first and second substrates;

(7) hardening the sealant material; and

(8) withdrawing the spacer.

29. (New) The method for connecting display panel substrates according to claim 28, wherein the hardening of said sealant material is performed by irradiation of ultraviolet light.

30. (New) The method for connecting display panel substrates according to claim 28, wherein the hardening of said sealant material is performed by heating.